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ABSTRACT

This report is a continuation of the planning effort undertaken in 1973 regarding the planning and coordination of postsecondary education in Michigan. The present study updates the enrollment reports, projections, and manpower data, reviews progress toward the objective of developing comprehensive and continuous planning for postsecondary education, and provides recommendations for an interdepartmental effort to secure and utilize appropriate manpower planning information. (Author/DB)

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ADVISING ON POSTSECONDARY ENROLLMENT PROJECTIONS AND MANPOWER NEEDS 1974-75

JC 740 474

MICHIGAN DEPARTMENT OF EDUCATION

FOREWORD

This report is a continuation of the planning effort undertaken in 1973 in response to the second basic responsibility of the State Board of Education regarding the planning and coordination of postsecondary education in Michigan. A prior report indicated the need for the development of a state management information system for collecting appropriate information from public and private institutions and government agencies. Major elements of the system included projecting annually the enrollments of both public and independent colleges and universities in Michigan, and for relating present and future manpower needs of the state and nation to the programs and services provided by the institutions.

This present study updates the enrollment reports, projections, and manpower data, reviews progress towards the objective of developing comprehensive and continuous planning for postsecondary education, and provides recommendations for an interdepartmental effort to secure and utilize appropriate manpower planning information.

JOHN W. PORTER
SUPERINTENDENT OF
PUBLIC INSTRUCTION

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PART I

INTRODUCTION

The Constitution of the State of Michigan designates the State Board of Education as being responsible for general planning and coordination of all public education, including higher education. This mandate is reflected in the State Plan for Higher Education, which calls for "the orderly development of a comprehensive state system of education beyond the secondary level that will effectively and efficiently serve all the needs of the State (Goal 1)." Other goals of the plan address the identification of these educational needs, and various other aspects of the planning process.

Issues Addressed in This Report

One of the basic elements of planning is the collection of data related to the issue under review. Information on college enrollments and degrees, certificates, and awards granted is reported annually through the Higher Education General Information Survey (HEGIS). This process, now in its eighth year, collects data from public baccalaureate institutions and community colleges, and independent colleges and universities, and forms the basis for the analysis of enrollment trends for this report.

Manpower data is obtained primarily from reports provided by the Michigan Employment Security Commission.

The primary issue of concern in this study is the relationship between future manpower needs and academic program planning on the part

of the institutions. The two possible failures in this process are (1) the failure of the educational system to provide qualified personnel to meet the manpower needs of the state, and (2) the enrollment of students in programs for which there is little or no opportunity for future employment. In time, the market forces of supply and demand will cause the system to reach a balance, but the examples of a shortage of physicians and surplus of teachers indicate that the present process can bear improvement.

Regardless of the outcome of the recommendations contained in this report with respect to the planning process, the data which is made available should be of assistance to institutional planners and thus hopefully will improve the planning process in this critical area.

PART II

TRENDS IN COLLEGIATE ENROLLMENTS

The base line for a study of enrollment trends in higher education is an analysis of current enrollments, and the number and characteristics of students who are presently taking advantage of educational programs. Data for this report is based upon the Higher Education General Information Survey (HEGIS) of opening fall enrollments.

Enrollments by Type of Institution

As shown in Table I, opening fall enrollments of degree credit students at institutions of higher education in Michigan, both public and private, reached a total of 424,763 in 1973. Included in this total were 221,075 in public four-year institutions, 153,355 in public two-year colleges, and 50,333 students at private institutions. (Table 1 is illustrated graphically in Figure 1.)

Table 2 shows the increase in total enrollments from 1972 to 1973 of 18,721 students, the largest headcount increase in three years, with most of the increase accounted for by the public two-year colleges. Private institutions showed a decline in enrollments, but the smallest decrease in three years.

Percentage changes from year to year are shown in Table 3. The total increase of 4.6% between 1972 and 1973 is the largest since 1970, while the public four-year institutions showed a modest increase of 1.1% compared to a loss of 0.7% the prior year. The increase for public community colleges was 12.2% and the decline for the independent institutions was 0.6%.

Table 1

OPENING FALL ENROLLMENT
DEGREE CREDIT STUDENTS
BY TYPE OF INSTITUTION
1960 to 1973 *

Year	Total	Public 4-Year Institutions	Public 2-Year Institutions	Private Institutions
1960	171,285	107,658	27,229	36,398
1961	181,979	112,082	31,619	38,278
1962	193,890	119,834	34,356	39,700
1963	207,725	129,113	38,001	40,611
1964	232,709	143,114	36,123	43,472
1965	268,424	162,312	58,216	47,896
1966	295,445	176,487	69,496	49,462
1967	317,867	187,708	79,698	50,461
1968	344,261	198,419	95,965	50,777
1969	374,381	208,323	115,299	50,759
1970	395,703	217,802	125,553	52,348
1971	403,559	220,165	132,059	51,335
1972	406,042	218,727	136,657	50,658
1973	424,763	221,075	153,355	50,333

* Source - Higher Education General Information Survey

Figure 1

OPENING FALL ENROLLMENT
BY TYPE OF INSTITUTION
1960 to 1973
(Graphic Display of Table 1)

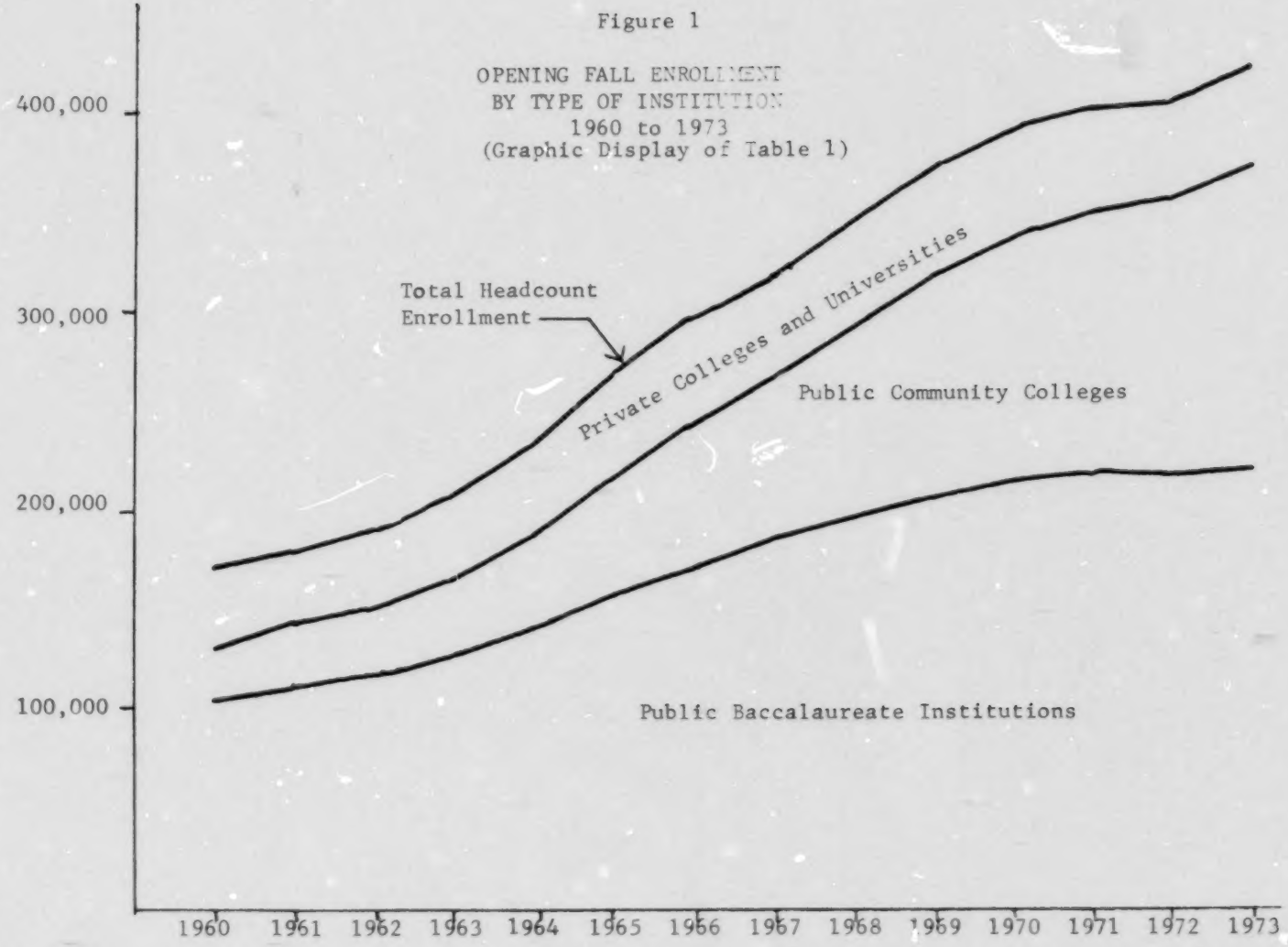


Table 2

CHANGE IN OPENING FALL ENROLLMENT
BY TYPE OF INSTITUTION
1961 to 1973 *

Year	Total	Public 4-Year Institutions	Public 2-Year Institutions	Private Institutions
1961	+10,694	+ 4,424	+ 4,390	+ 1,880
1962	+ 11,911	+ 7,752	+ 2,737	+ 1,422
1963	+ 13,835	+ 9,279	+ 3,645	+ 911
1964	+ 24,984	+ 14,001	+ 8,122	+ 2,861
1965	+ 35,715	+ 19,198	+ 12,093	+ 4,424
1966	+ 27,021	+ 14,175	+ 11,280	+ 1,566
1967	+ 22,422	+ 11,221	+ 10,202	+ 999
1968	+ 27,294	+ 10,711	+ 16,267	+ 316
1969	+ 29,220	+ 9,904	+ 19,334	(18)
1970	+ 21,322	+ 9,479	+ 10,254	+ 1,589
1971	+ 7,856	+ 2,363	+ 6,506	(1,013)
1972	+ 2,478	(1,438)	+ 4,598	(677)
1973	+ 18,721	+ 2,348	+ 16,698	(325)

* Source - Higher Education General Information Survey

( ) Indicates decline

Table 3

PERCENTAGE CHANGE IN OPENING FALL ENROLLMENT
BY TYPE OF INSTITUTION
1961 to 1973 **

Year	Total	Public 4-Year Institutions	Public 2-Year Institutions	Private Institutions
1961	+ 6.2	+ 4.1	+ 16.1	+ 5.2
1962	+ 6.5	+ 6.9	+ 8.7	+ 3.7
1963	+ 7.1	+ 7.7	+ 10.6	+ 2.3
1964	+ 12.0	+ 10.8	+ 21.4	+ 7.0
1965	+ 15.3	+ 13.4	+ 26.2	+ 10.2
1966	+ 10.1	+ 8.7	+ 19.4	+ 3.3
1967	+ 7.6	+ 6.4	+ 14.7	+ 2.0
1968	+ 8.6	+ 5.7	+ 20.4	+ 0.6
1969	+ 8.5	+ 5.0	+ 20.2	*
1970	+ 5.7	+ 3.5	+ 8.9	+ 3.1
1971	+ 2.0	+ 1.1	+ 5.2	(1.9)
1972	+ 0.6	(0.7)	+ 3.5	(1.3)
1973	+ 4.6	+ 1.1	+ 12.2	- 0.6

* Decrease of less than 0.05%

** Source - Higher Education General Information Survey

( ) Indicates decline

Table 4 shows the percentage distribution of students by type of institution for each of the years from 1960 to 1973. The public four-year institutions enrolled 62.9% of the students in 1960, and 52.0% in 1973; private institutions accounted for 21.2% of the enrollments in 1960, compared to 11.8% in 1973; and the public community colleges had 15.9% of the students in 1960 and 36.1% in 1973. (Table 4 is shown graphically in Figure 2).

Table 4

PERCENTAGE DISTRIBUTION OF OPENING FALL ENROLLMENT
BY TYPE OF INSTITUTION
1960 to 1973 *

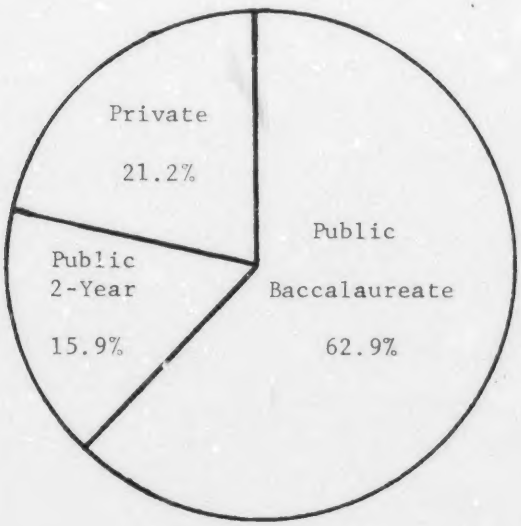
Year	Total	Public 4-Year Institutions	Public 2-Year Institutions	Private Institutions
1960	100.0	62.9	15.9	21.2
1961	100.0	61.6	17.4	21.0
1962	100.0	61.8	17.7	20.5
1963	100.0	62.1	18.3	19.6
1964	100.0	61.5	19.8	18.7
1965	100.0	60.5	21.7	17.8
1966	100.0	59.7	23.5	16.8
1967	100.0	59.0	25.1	15.9
1968	100.0	57.6	27.6	14.8
1969	100.0	55.6	30.8	13.6
1970	100.0	55.1	31.7	13.2
1971	100.0	54.6	32.7	12.7
1972	100.0	53.8	33.7	12.5
1973	100.0	52.0	36.1	11.8

* Source - Higher Education General Information Survey

Figure 2

PERCENTAGE DISTRIBUTION OF OPENING FALL ENROLLMENT
BY TYPE OF INSTITUTION
1960 and 1973
(Graphic Display of Table 4)

Fall, 1960



Fall, 1973

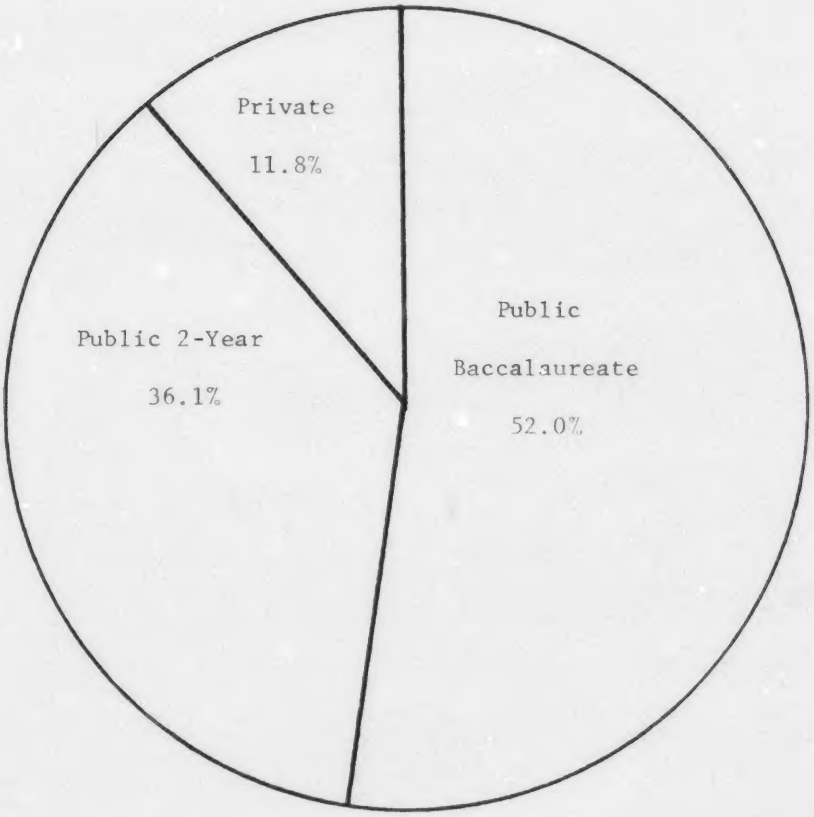
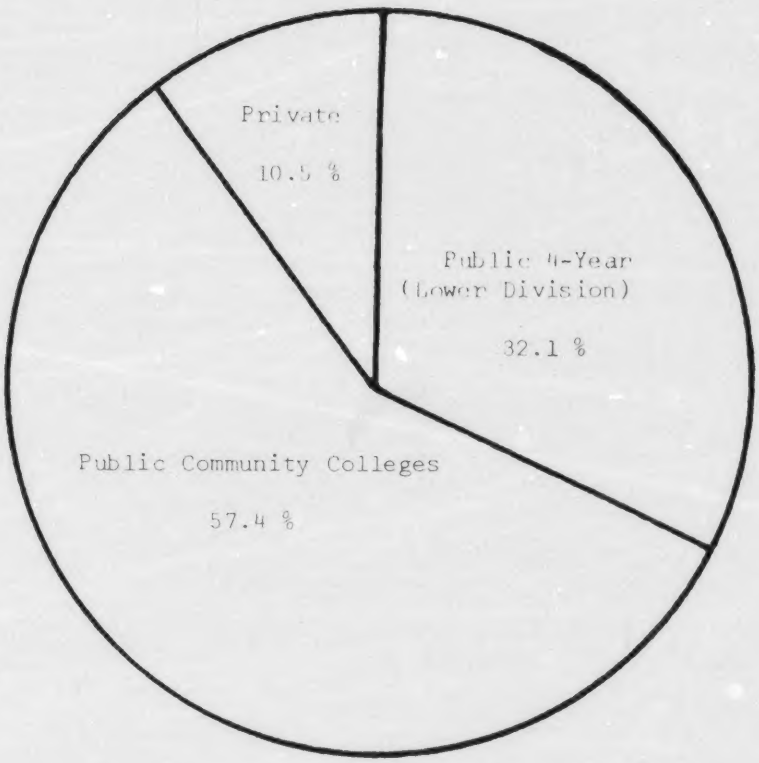


Figure 2a

DISTRIBUTION OF LOWER DIVISION
STUDENTS BY TYPE OF INSTITUTION
FALL, 1973

	Public Four-Year	Public Two-Year	Private	All Institutions
Headcount	85,772	153,355	28,148	267,275
Percentage	32.1%	57.4%	10.5%	100.0%



Enrollments by Institution

Tables 5 to 7 show a comparison between opening fall enrollments at each institution for the years 1972 and 1973. As the HEGIS data counted extension students and non-degree-credit enrollments in a slightly different manner in 1973, the figures are adjusted slightly to maintain comparability to the prior year. Thus the totals will be at variance with the 1973 totals in Tables 1 to 3.

Table 5 indicates that five of the public baccalaureate institutions declined in enrollment on a headcount basis, while eight increased enrollments. In referring to the 1971 report, Eastern Michigan, Ferris State College, and Western Michigan University have shown declining enrollments two years in a row, while Central Michigan, Northern Michigan, and Wayne State Universities reversed enrollment losses in 1972 to show increased student headcount in 1973.

Six of the 29 community colleges showed decreased headcount enrollments from 1972 to 1973, compared to 13 showing declines between 1971 and 1972. To some extent, increased enrollment levels may be attributable to the inclusion of extension course enrollments in degree-credit headcount under the HEGIS format for 1973.

Table 7 shows headcount enrollment comparisons for the 46 independent colleges and universities participating in the survey. Although these institutions showed a net gain in overall total enrollments, exactly half reported fewer students in 1973 than a year prior.

Table 5

PUBLIC FOUR-YEAR COLLEGES AND UNIVERSITIES
DEGREE CREDIT ENROLLMENTS

	1972	1973	Gain/ Loss
Central Michigan University	16,507	16,523	16
Eastern Michigan University	20,686	19,847	(839)
Ferris State College	8,864	8,584	(280)
Grand Valley State Colleges	5,218	5,920	702
Lake Superior State College	1,890	1,900	10
Michigan State University	44,616	44,966	350
Michigan Technological University	5,018	4,975	(43)
Northern Michigan University	8,053	8,208	155
Oakland University	8,169	9,638	1,469
Saginaw Valley College	2,278	2,223	(55)
University of Michigan	41,179	43,160	1,981
Wayne State University	33,837	33,909	72
Western Michigan University	22,349	22,040	(309)
TOTAL	218,664	221,893	3,229

( ) Indicates decline

Table 5a

PUBLIC FOUR-YEAR COLLEGES AND UNIVERSITIES
FULL-TIME EQUIVALENT ENROLLMENTS
CHANGE FROM FALL, 1972

	Full-Time Equivalent		
	1972	1973	Change
Central Michigan University	13,652	13,615	(37)
Eastern Michigan University	14,595	14,387	(208)
Ferris State College	9,622	8,463	(1,159)
Grand Valley State College	4,732	5,227	+495
Lake Superior State College	1,684	1,688	+4
Michigan State University	38,534	39,152	+618
Michigan Technological University	5,437	4,658	(779)
Northern Michigan University	6,916	6,987	+71
Oakland University	6,312	7,070	+758
Saginaw Valley College	1,583	1,537	(46)
University of Michigan - Ann Arbor	32,489	32,689	+200
University of Michigan - Dearborn	1,659	2,439	+780
University of Michigan - Flint	2,020	2,261	+241
Wayne State University	24,585	26,117	+1,532
Western Michigan University	17,680	17,914	+234
Total	181,500	184,204	+2,704

Source: Higher Education General Information Survey

( ) Indicates decline

Note: Variances in calculation of F.T.E. make comparisons to prior year erroneous in some cases.

Table 6

COMMUNITY AND JUNIOR COLLEGES
DEGREE CREDIT ENROLLMENTS

	1972	1973	Gain/ Loss
Alpena	1,328	1,425	97
Bay de Noc	799	831	32
Delta	6,123	6,515	392
Glen Oaks	648	1,150	502
Gogebic	708	728	20
Grand Rapids	5,319	5,727	408
Henry Ford	11,187	13,581	2,394
Highland Park	3,624	3,355	(269)
Jackson	3,609	4,143	534
Kalamazoo Valley	4,175	4,232	57
Kellogg	3,329	3,507	178
Kirtland	614	759	145
Lake Michigan	3,082	2,895	(187)
Lansing	8,773	10,640	1,867
Macomb	17,485	19,217	1,732
Mid Michigan	775	896	121
Monroe	1,674	1,583	(91)
Montcalm	891	1,086	195
C. S. Mott	13,187	19,569	6,382
Muskegon	3,879	4,240	361
North Central Michigan	869	1,019	150
Northwestern Michigan	1,936	2,060	124
Oakland Community	14,034	15,428	1,394
Saint Clair	3,787	2,538	(1,249)
Schoolcraft	5,847	6,370	523
Southwestern Michigan	950	1,033	83
Washtenaw	4,217	4,401	184
Wayne	14,000	13,064	(936)
West Shore	785	723	(62)
TOTAL	137,634	152,715	15,081

( ) Indicates decline

Table 6a

COMMUNITY AND JUNIOR COLLEGES
FULL-TIME EQUIVALENT ENROLLMENTS
CHANGE FROM FALL, 1972

	1972	1973	Change
Alpena	991	929	(62)
Bay de Noc	629	542	(87)
Delta	3,873	4,652	+779
C.S. Mott	4,798	5,194	+396
Glen Oaks	427	500	+73
Gogebic	542	615	+73
Grand Rapids	3,841	3,976	+135
Henry Ford	5,607	6,357	+750
Highland Park	2,333	2,230	(103)
Jackson	2,062	2,343	+281
Kalamazoo Valley	2,281	2,966	+685
Kellogg	2,040	3,471	+1,431
Kirtland	467	511	+44
Lake Michigan	1,808	1,619	(189)
Lansing	4,654	5,634	+980
Macomb	9,326	9,054	(272)
Mid Michigan	427	454	+27
Monroe	1,068	1,116	+48
Montcalm	554	768	+214
Muskegon	2,397	2,544	+147
North Central	562	638	+76
Northwestern	1,565	1,669	+104
Oakland	7,388	7,895	+507
St. Clair	2,200	1,487	(713)
Schoolcraft	3,294	4,152	+858
Southwestern	763	823	+60
Washtenaw	2,038	2,777	+739
Wayne	7,340	6,908	(432)
West Shore	517	416	(101)
Total	75,792	82,240	+6,448

Source: Higher Education General Information Sruvey

( ) Indicates Decline

Note: Variances in calculation of F.T.E. make comparisons to prior year erroneous in some cases.

Table 7

INDEPENDENT COLLEGES AND UNIVERSITIES
TOTAL HEADCOUNT ENROLLMENTS

	1972	1973	Gain/ Loss
Adrian	1,191	1,125	(66)
Albion	1,783	1,789	6
Alma	1,229	1,214	(15)
Andrews	2,119	2,276	157
Aquinas	1,506	1,536	30
Calvin	3,185	3,253	68
Calvin Seminary	137	156	19
Cleary	658	601	(57)
Concordia Lutheran	474	479	5
Cranbrook Academy of Art	147	146	(1)
Davenport	1,311	1,174	(137)
Detroit Bible	330	292	(38)
Detroit College of Business	1,229	1,156	(73)
Detroit College of Law	875	871	(4)
Detroit Institute of Tech.	995	1,243	248
Duns Scotus	326	70	(256)
General Motors Institute	3,114	3,189	75
Grace Bible College	137	116	(21)
Grand Rapids Baptist	717	781	64
Great Lakes Bible College		135	
Hillsdale	1,131	1,027	(104)
Hope	2,124	2,077	(47)
John Wesley	237	358	121
Kalamazoo	1,384	1,356	(28)
Lawrence Institute of Tech.	4,026	4,027	1
Madonna	831	1,025	194
Maryglade	13	*	(13)
Marygrove	1,128	826	(302)
Mercy	1,822	1,898	76
Merrill-Palmer	85	77	(8)
Michigan Christian	191	174	(17)
Muskegon Business College	477	445	(32)
Nazareth	460	715	255
Northwood	1,065	1,285	220
Olivet	802	787	(15)
Reformed Bible	156	188	32
Sacred Heart	142	129	(13)
Saint Mary's	111	142	31
Shaw	762	1,039	277
Siena Heights	681	837	156

Table 7

INDEPENDENT COLLEGES AND UNIVERSITIES
TOTAL HEADCOUNT ENROLLMENTS
(Continued)

	1972	1973	Gain/ Loss
Society of Arts & Crafts	703	719	16
Spring Arbor	688	770	82
Suomi	338	312	(26)
University of Detroit	9,308	8,693	(615)
Walsh College	415	543	128
Western Theological Sem.	115	109	(6)
TOTAL	50,658	51,160	502

* Enrollment not reported

( ) Indicates decline

Enrollments by Sex and Full-Time Status

Tables 8 to 10 provide detailed information by institution of enrollment by sex and full-time or part-time status for the fall, 1973 term.

As shown in Table 8, there were 122,937 men and 98,956 women enrolled in public baccalaureate institutions, or 55.4% male students. This compares to a nearly identical ratio a year prior. Full-time students consisted of 72.5% of the total, compared to 74.7% full-time enrollments in 1972.

For Community Colleges, in Table 9, male students were 54.6% of the total, compared to 56.9% in 1972. Full-time enrollment declined from 36.3% in 1972 to 32.3% in 1973, a total of 49,367 full-time students in 1973.

Table 10 shows 31,122 men students in independent colleges and universities and 20,038 women, indicating male students at 60.8% the same ratio as the year prior. The ratio of full-time to part-time enrollments also remained constant, at about 76%.

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Table 8

OPENING FALL ENROLLMENT
PUBLIC BACCALAUREATE INSTITUTIONS
FALL, 1973

Institution	Headcount								
	Men			Women			Total		
	Full Time	Part Time	Total	Full Time	Part Time	Total	Full Time	Part Time	Total
Central Michigan University	6,009	1,701	7,710	6,517	2,296	8,813	12,526	3,997	16,523
Eastern Michigan University	5,605	4,497	10,102	5,679	4,066	9,745	11,284	8,563	19,847
Ferris State College	5,566	106	5,672	2,776	136	2,912	8,342	242	8,584
Grand Valley State Colleges	2,465	867	3,332	2,052	536	2,588	4,517	1,403	5,920
Lake Superior State College	1,022	194	1,216	557	127	684	1,579	321	1,900
Michigan State University	19,461	5,177	24,638	15,739	4,589	20,328	35,200	9,766	44,966
Michigan Technological University	3,863	283	4,146	677	152	829	4,540	435	4,975
Northern Michigan University	3,304	933	4,237	2,988	983	3,971	6,292	1,916	8,208
Oakland University	2,985	1,185	4,170	2,593	2,875	5,468	5,578	4,060	9,638
Saginaw Valley College	633	571	1,204	485	534	1,019	1,118	1,105	2,223
University of Michigan									
Ann Arbor	18,580	3,435	22,015	11,507	3,795	15,302	30,087	7,230	37,317
Dearborn	1,208	735	1,943	687	308	995	1,895	1,043	2,938
Flint	1,021	511	1,532	947	426	1,373	1,968	937	2,905
Wayne State University	12,134	7,192	19,326	8,728	5,855	14,583	20,862	13,047	33,909
Western Michigan University	8,426	3,268	11,694	6,954	3,392	10,346	15,380	6,660	22,040
Total	92,282	30,655	122,937	68,886	30,070	98,956	161,168	60,725	221,893

Source: Higher Education General Information Survey (HEGIS) 1973, OE Form 2300-2.3

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Table 9
OPENING FALL ENROLLMENT
PUBLIC COMMUNITY AND JUNIOR COLLEGES
FALL, 1973

Institution	Headcount								
	Men			Women			Total		
	Full Time	Part Time	Total	Full Time	Part Time	Total	Full Time	Part Time	Total
Alpena Community College	513	442	955	245	225	470	758	667	1,425
Bay de Noc Community College	245	236	481	170	180	350	415	416	831
Delta College	1,750	1,573	3,323	1,681	1,511	3,192	3,431	3,084	6,515
Glen Oaks Community College	237	502	739	132	279	411	369	781	1,150
Gogebic Community College	344	87	431	216	81	297	560	168	728
Grand Rapids Junior College	1,892	1,213	3,105	1,336	1,286	2,622	3,228	2,499	5,727
Henry Ford Community College	1,846	7,401	9,247	1,202	3,132	4,334	3,048	10,533	13,581
Highland Park Community College	645	975	1,620	825	910	1,735	1,470	1,885	3,355
Jackson Community College	1,044	1,740	2,784	465	894	1,359	1,509	2,634	4,143
Kalamazoo Valley Community College	846	1,369	2,215	597	1,420	2,017	1,443	2,789	4,232
Kellogg Community College	734	979	1,713	647	1,147	1,794	1,381	2,126	3,507
Kirtland Community College	302	171	473	125	161	286	427	332	759
Lake Michigan College	543	1,061	1,604	438	853	1,291	981	1,914	2,895
Lansing Community College	1,895	4,076	5,971	1,313	3,356	4,669	3,208	7,432	10,640
Macomb County Community College	3,336	8,579	11,915	2,045	5,257	7,302	5,381	13,836	19,217
Mid Michigan Community College	179	203	382	165	349	514	344	552	896
Monroe County Community College	422	562	984	285	314	599	707	876	1,583
Montcalm Community College	434	265	699	237	150	387	671	415	1,086
C. S. Mott Community College	1,479	7,679	9,158	1,227	9,184	10,411	2,706	16,863	19,569
Muskegon Community College	1,001	1,500	2,501	695	1,044	1,739	1,696	2,544	4,240
North Central Michigan College	228	236	464	220	335	555	448	571	1,019
Northwestern Michigan College	765	324	1,089	722	249	971	1,487	573	2,060
Oakland Community College	2,569	5,656	8,225	1,559	5,644	7,203	4,128	11,300	15,428
St. Clair County Community College	726	575	1,301	665	572	1,237	1,391	1,147	2,538
Schoolcraft College	1,346	2,311	3,657	846	1,867	2,713	2,192	4,178	6,370
Southwestern Michigan College	387	193	580	265	188	453	652	381	1,033
Washtenaw Community College	733	2,074	2,807	424	1,170	1,594	1,157	3,244	4,401
Wayne County Community College	1,492	3,083	4,575	2,338	6,151	8,489	3,830	9,234	13,064
West Shore Community College	206	172	378	143	202	345	349	374	723
Total	28,139	55,237	83,376	21,228	48,111	69,339	49,367	103,348	152,715

Source: Higher Education General Information Survey (HEGIS) 1973, OE Form 2300-2.3

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Table 10
OPENING FALL ENROLLMENT
INDEPENDENT COLLEGES AND UNIVERSITIES
FALL, 1973

Institution	Headcount								
	Men			Women			Total		
	Full Time	Part Time	Total	Full Time	Part Time	Total	Full Time	Part Time	Total
Adrian College	546	32	578	526	21	547	1,072	53	1,125
Albion College	951	13	964	804	21	825	1,755	34	1,789
Alma College	621	6	627	574	13	587	1,195	19	1,214
Andrews University	1,036	197	1,233	829	214	1,043	1,865	411	2,276
Aquinas College	541	297	838	483	215	698	1,024	512	1,536
Calvin College	1,618	84	1,702	1,432	119	1,551	3,050	203	3,253
Calvin Seminary	132	20	152	2	2	4	134	22	156
Cleary College	71	217	288	140	173	313	211	390	601
Concordia Lutheran Jr. College	218	5	223	254	2	256	472	7	479
Cranbrook Academy of Art	91	--	91	55	--	55	146	--	146
Davenport College of Business	330	246	576	420	178	598	750	424	1,174
Detroit Bible College	119	84	203	62	27	89	181	111	292
Detroit College of Business	283	267	550	384	222	606	667	489	1,156
Detroit College of Law	801	--	801	70	--	70	871	--	871
Detroit Institute of Technology	636	232	868	275	100	375	911	332	1,243
Duns Scotus College	63	5	68	--	2	2	63	7	70
General Motors Institute	2,942	--	2,942	247	--	247	3,189	--	3,189
Grace Bible College	52	5	57	42	17	59	94	22	116
Grand Rapids Baptist College & Sem.	305	104	409	324	48	372	629	152	781
Great Lakes Bible College	72	16	88	40	7	47	112	23	135
Hillsdale College	539	18	557	456	14	470	995	32	1,027
Hope College	929	95	1,024	971	82	1,053	1,900	177	2,077
John Wesley College at Owosso	143	25	168	149	41	190	292	66	358
Kalamazoo College	729	3	732	623	1	624	1,352	4	1,356
Lawrence Institute of Technology	2,298	1,592	3,890	72	65	137	2,370	1,657	4,027

OPENING FALL ENROLLMENT
INDEPENDENT COLLEGES AND UNIVERSITIES
FALL, 1973
Page 2

Table 10
Continued

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Institution	Headcount								
	Men			Women			Total		
	Full Time	Part Time	Total	Full Time	Part Time	Total	Full Time	Part Time	Total
Madonna College	192	104	296	434	295	729	626	399	1,025
Marygrove College	61	51	112	518	196	714	579	247	826
Mercy College of Detroit	228	394	622	1,046	230	1,276	1,274	624	1,898
Merrill-Palmer Institute	12	--	12	56	9	65	68	9	77
Michigan Christian Junior College	63	12	75	90	9	99	153	21	174
Muskegon Business College	120	58	178	223	44	267	343	102	445
Nazareth College	29	60	89	375	251	626	404	311	715
Northwood Institute	940	7	947	335	3	338	1,275	10	1,285
Olivet College	458	11	469	299	19	318	757	30	787
Reformed Bible College	87	6	93	81	14	95	168	20	188
Sacred Heart Seminary	77	52	129	--	--	--	77	52	129
Saint Mary's College	52	41	93	8	41	49	60	82	142
Shaw College at Detroit	468	53	521	475	43	518	943	96	1,039
Siena Heights College	233	94	327	349	161	510	582	255	837
Society of Arts & Crafts	180	224	404	116	199	315	296	423	719
Spring Arbor College	325	27	352	368	50	418	693	77	770
Suomi College	174	9	183	126	3	129	300	12	312
University of Detroit	3,547	2,476	6,023	1,485	1,185	2,670	5,032	3,661	8,693
Walsh College	119	346	465	24	54	78	143	400	543
Western Theological Seminary	89	14	103	1	5	6	90	19	109
Totals	23,520	7,602	31,122	15,643	4,395	20,038	39,163	11,997	51,160

Source: Higher Education General Information Survey (HEGIS) 1973, OE Form 2300-2.3

Enrollments for Advanced Degrees

Tables 11 and 12 show the number of students enrolled for advanced degrees in Michigan during the fall, 1973, term. These enrollments are shown by institution and field of study.

Table 11 shows a total of 44,116 students enrolled for advanced degrees at public baccalaureate institutions in the fall of 1973, an increase of 3,567 over 1972. Of these 11.8% were enrolled in first professional degrees of dentistry, medicine, veterinary medicine, and law. Of the 38,903 students enrolled in masters and higher level programs, there were 15,537 or nearly 40% in Education. Next in popularity were Business and Management Programs, with 3,596 students, with Social Sciences, Engineering, and Health Professions in that order next in size of enrollments.

Enrollments at private colleges and universities are shown next, with 2,475 students enrolled in professional degree programs and 2,231 in master's and higher programs. Table 12 indicates Law to be the highest enrollment professional program. Business and Management comprise about 35% of enrollments in masters and higher programs. The total advance degree enrollment at private institutions for 1973 was 4,706 compared to 4,525 in 1972, an increase of 181.

Total professional and graduate enrollment for public and private colleges was 48,822 or 11.5% of all college, university and community college enrollment in 1973, compared to 45,074 or 11.1% in 1972.

Recommendation

Examination of degree program enrollments, in particular graduate programs as shown in Table 11, indicates a considerable number of low-enrollment programs.

Due to cost and manpower needs it is questionable for graduate institutions to offer advanced degree programs where numbers enrolled do not justify costs.

Therefore, it is recommended that the State Board of Education support the phasing out of graduate programs that cannot, in a three year period, produce a full-time equated enrollment of at least 15 students.

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Table 11

STUDENTS ENROLLED FOR ADVANCED DEGREES AT PUBLIC BACCALAUREATE INSTITUTIONS IN MICHIGAN, FALL 1973

Major Field of Study	Central Michigan	Eastern Michigan	Grand Valley State College	Michigan State	Michigan Tech.	Northern Michigan	Oakland University	U of Mich. Ann Arbor	U of Mich. Dearborn	Wayne State	Western Michigan	Total
First-Professional Degrees												
Dentistry	--	--	--	--	--	--	--	563	--	--	--	563
Medicine	--	--	--	311	--	--	--	947	--	874	--	2,132
Optometry	--	--	--	--	--	--	--	--	--	--	--	--
Osteopathic Medicine	--	--	--	176	--	--	--	--	--	--	--	176
Podiatry	--	--	--	--	--	--	--	--	--	--	--	--
Veterinary Medicine	--	--	--	328	--	--	--	--	--	--	--	328
Law	--	--	--	--	--	--	--	1,064	--	950	--	2,014
Theology	--	--	--	--	--	--	--	--	--	--	--	--
Totals	--	--	--	815	--	--	--	2,574	--	1,824	--	5,213
Master and Higher Degrees												
Agriculture & Natural Resources	--	--	--	664	5	--	--	150	--	--	--	819
Architecture & Environmental Design	--	--	--	50	--	--	--	391	--	116	--	557
Area Studies	--	--	--	--	--	--	--	100	--	5	33	138
Biological Sciences	62	69	--	554	37	31	--	507	--	224	70	1,554
Business & Management	136	482	51	795	13	3	34	1,035	52	747	248	3,596
Communication	17	--	--	213	--	--	--	41	--	--	--	271
Computer & Information Services	--	--	--	83	--	--	--	173	--	96	16	368
Education	711	2,705	--	3,707	--	608	1,660	2,134	--	2,545	1,467	15,537
Engineering	--	--	--	224	97	--	42	829	213	394	60	1,859
Fine & Applied Arts	3	72	--	198	--	--	--	432	--	134	61	900
Foreign Languages	--	14	--	111	--	--	--	291	--	89	32	537
Health Professions	3	6	--	102	--	16	--	945	--	618	104	1,794
Home Economics	12	95	--	244	--	--	--	--	--	75	27	453
Law	--	--	--	--	--	--	--	18	--	108	--	126
Letters	50	106	--	295	--	8	22	763	--	485	105	1,834
Library Science	18	--	--	--	--	--	--	465	--	259	212	954
Mathematics	24	47	--	192	12	4	8	247	--	145	46	725
Physical Sciences	16	32	--	346	34	11	15	378	--	164	58	1,054
Psychology	117	74	--	209	--	--	59	350	--	186	157	1,152
Public Affairs & Services	49	--	--	242	--	22	--	897	--	391	99	1,700
Social Sciences	87	131	--	558	--	16	18	902	--	511	270	2,493
Theology	--	--	--	--	--	--	--	--	--	--	--	--
Interdisciplinary Studies	15	--	--	20	--	151	--	269	--	25	2	483
Totals	1,320	3,833	51	8,807	198	870	1,858	11,317	265	7,317	3,067	38,903
Advanced Degree Totals	1,320	3,833	51	9,622	198	870	1,858	13,891	265	9,141	3,067	44,116

Source: Higher Education General Information Survey (HEGIS) 1973, OE form 2300-2.5

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Table 12

STUDENTS ENROLLED FOR ADVANCED DEGREES AT INDEPENDENT COLLEGES AND UNIVERSITIES IN MICHIGAN, FALL 1973

Major Field of Study	Andrews University	Detroit College of Law	Calvin Theological Seminary	Cranbrook Academy of Art	G. R. Baptist College and Seminary	Marygrove College	Siena Heights College	U of Detroit	Western Theological Seminary	Total
First-Professional Degrees										
Dentistry	--	--	--	--	--	--	--	310	--	310
Medicine	--	--	--	--	--	--	--	--	--	--
Optometry	--	--	--	--	--	--	--	--	--	--
Osteopathic Medicine	--	--	--	--	--	--	--	--	--	--
Podiatry	--	--	--	--	--	--	--	--	--	--
Veterinary Medicine	--	--	--	--	--	--	--	--	--	--
Law	--	871	--	--	--	--	--	726	--	1,597
Theology	286	--	130	--	67	--	--	--	55	538
Totals	286	871	130	--	67	--	--	1,036	55	2,475
Master and Higher Degrees										
Agriculture & Natural Resources	--	--	--	--	--	--	--	--	--	--
Architecture & Environmental Design	--	--	--	8	--	--	--	5	--	13
Area Studies	--	--	--	--	--	--	--	--	--	--
Biological Sciences	13	--	--	--	--	--	--	19	--	32
Business & Management	27	--	--	--	--	--	--	760	--	787
Communication	--	--	--	--	--	--	--	--	--	--
Computer & Information Services	--	--	--	--	--	--	--	--	--	--
Education	134	--	--	--	--	165	55	133	--	487
Engineering	--	--	--	--	--	--	--	68	--	68
Fine & Applied Arts	28	--	--	129	--	--	--	--	--	157
Foreign Languages	--	--	--	--	--	--	--	--	--	--
Health Professions	--	--	--	--	--	--	--	20	--	20
Home Economics	--	--	--	--	--	--	--	--	--	--
Law	--	--	---	--	--	--	--	--	--	--
Letters	17	--	--	--	--	--	--	146	--	163
Library Science	--	---	--	--	--	--	--	--	--	--
Mathematics	1	--	--	--	--	--	---	44	--	45
Physical Sciences	--	--	--	--	--	--	--	55	--	55
Psychology	--	--	--	--	--	--	--	129	--	129
Public Affairs & Services	--	--	--	--	--	--	--	--	--	--
Social Sciences	8	--	--	--	--	--	--	154	--	162
Theology	45	--	18	--	28	--	--	4	15	110
Interdisciplinary Studies	--	--	--	--	--	2	--	1	--	3
Totals	273	--	18	137	28	167	55	1,538	15	2,231
Advanced Degree Totals	559	871	148	137	95	167	55	2,574	100	4,706

Source: Higher Education General Information Survey (HEGIS) 1973, OE form 2300-2.5.

PART III

PROJECTION OF COLLEGIATE ENROLLMENTS

Table 13 provides a summary of the projections of student enrollment from the State Plan for Higher Education in Michigan (1969). At that time, it was estimated that total enrollments for all Michigan institutions would grow from an estimated 397,300 in 1970, to 541,200 in 1975, and to 642,000 in 1980. Public two-year institutions would have 27.5 percent of the total in 1970, 32.5 percent in 1975, and 35.5 percent in 1980. Private institutions would enroll 14.9 percent in 1970, 12.5 percent in 1975, and 10.9 percent in 1980.

A number of variables account for the difficulties of a purely statistical extrapolation of enrollment trends from the past. Among these are: (1) termination of the military draft, resulting in a decline in the college-going rate for U.S. males; (2) decreased emphasis upon a college degree as a credential for employment; (3) state and federal programs to enhance equality of access and equality of opportunity for potential students; (4) a declining birthrate and resultant reduction in the pool of available college-age youth; and (5) the potential expansion and increased availability of external degree and nontraditional college programs. The combined effect of these trends is to bring about a substantial decrease in the projected college enrollment level for institutions of higher education in the state.

These factors also account, to some extent, for the shift in enrollment mix towards the two-year community colleges, and away from the public four-year baccalaureate institutions. Extension of the present trend in enrollments by type of institution is shown in Table 14, indicating a decline in public baccalaureate enrollment to 47.2%

of the total in 1980, compared to 52.0% in 1973. Community college enrollments, if continued at the rate of the past several years, would be 40.8% of the total in 1980, compared to 36.1% in 1973. Private institutions would remain about constant at 12% of all students on a headcount basis.

Table 15 provides an estimate of enrollments by type of institution, 1975 to 1980. Total estimated enrollments are a function of the projected population of the state, assuming the rate of enrollments in college to remain constant over the period to 1980.

The total of 450,750 students, shown in Table 15, compares to 642,000 projected in the 1969 State Plan, and to a total of 427,000 developed in a report of the Population Studies Center, University of Michigan, for the Governor's Commission on Higher Education. A comparison of the three projections is shown in Table 16, and illustrated graphically in Figure 3.

Projected enrollments for Michigan institutions of higher education indicate a much lower potential for future enrollments than had previously been estimated. Each institution, individually, may be expected to view that its share of the total would be proportionately greater than the overall average. However, each institution draws essentially from the same pool of potential students, and that pool is not expanding greatly, if at all. Department of Education staff, together with representatives of the institutions, will jointly develop a projection of enrollments by institution for the state through the year 1980. These projections would take into account the human aspirations of the citizens of the state, the capabilities of the institutions, and the needs of society, as well as the overall total of potential students.

Table 13

ENROLLMENT PROJECTIONS IN STATE PLAN FOR HIGHER EDUCATION IN MICHIGAN *

	Public 2-Yr.	Public 4-Yr.	Private	Total
Estimate				
1970	109,200	228,800	59,200	397,300
1975	175,900	298,200	67,100	541,200
1980	227,900	344,100	70,000	642,000
Percent				
1970	27.5	57.6	14.9	100.0
1975	32.5	55.1	12.4	100.0
1980	35.5	53.6	10.9	100.0

* State Plan for Higher Education in Michigan

Table 14

ESTIMATED PERCENTAGE DISTRIBUTION
OF OPENING FALL ENROLLMENT
BY TYPE OF INSTITUTION
1974 TO 1980

Year	Total	Public 4-Year	Public 2-Year	Private Institutions
1974	100.0	51.5	36.0	12.5
1975	100.0	50.7	37.0	12.3
1976	100.0	49.9	37.9	12.2
1977	100.0	49.1	38.6	12.3
1978	100.0	48.4	39.2	12.4
1979	100.0	47.8	39.7	12.5
1980	100.0	47.2	40.8	12.0

Table 15

ESTIMATED ENROLLMENTS
BY TYPE OF INSTITUTION
1974 TO 1980

	Total Estimated Enrollment	Public 4-Year	Public 2-Year	Private
1974	431,518	222,232	155,346	53,940
1975	440,533	223,502	162,997	54,034
1976	450,750	224,924	170,834	55,192
1977	454,356	223,089	175,381	55,886
1978	458,563	221,944	179,757	56,862
1979	456,760	218,331	181,334	57,095
1980	450,750	212,754	183,906	54,090

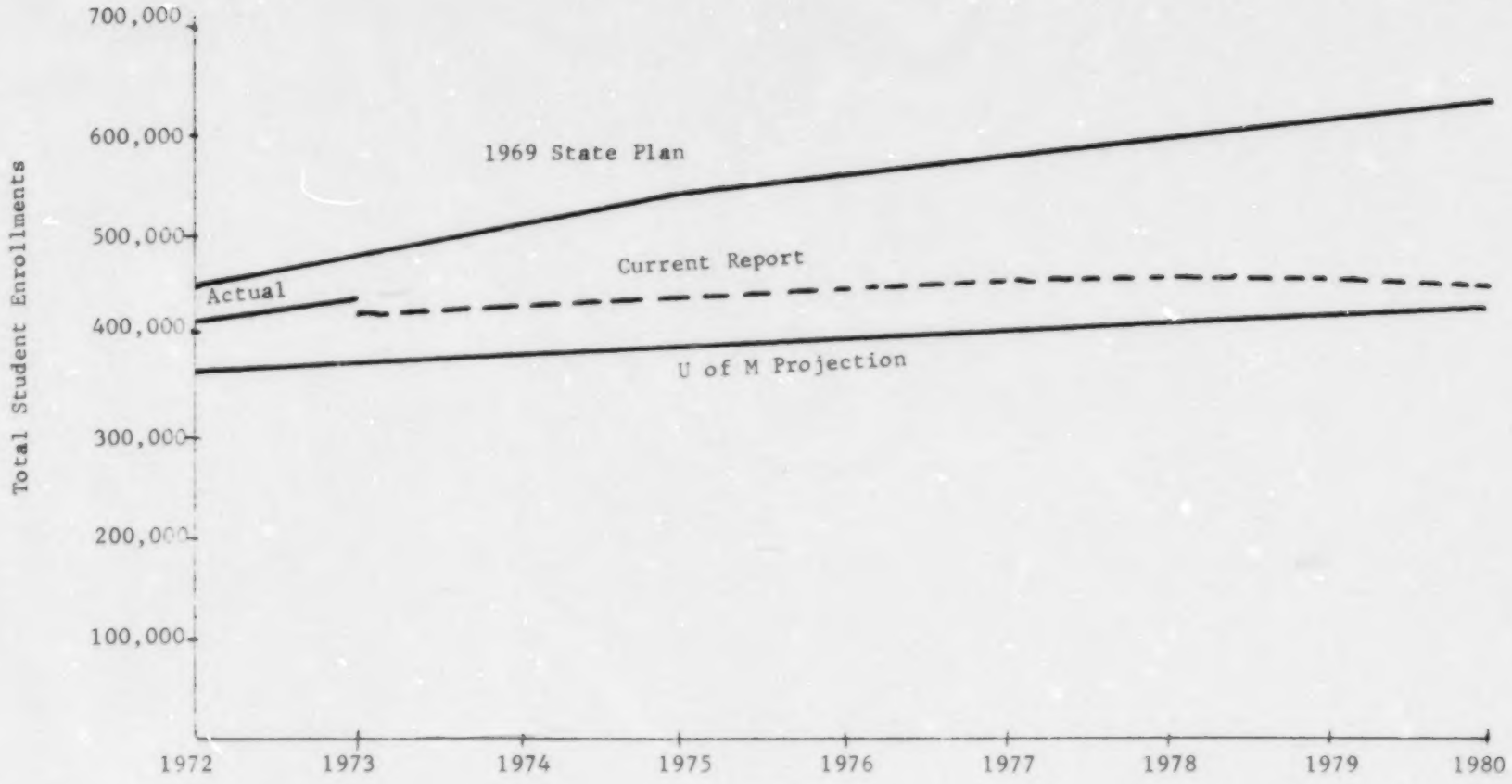
Table 16

COMPARISON OF ENROLLMENT PROJECTIONS *

Year	Actual	State Plan	U. of M. Report *	Current Report
1970	395,703	397,300	342,000	-
1971	403,559	-	-	-
1972	406,042	-	-	-
1973	424,763	-	-	-
1974	-	-	-	431,518
1975	-	541,200	386,000	440,533
1976	-	-	-	450,750
1977	-	-	-	454,356
1978	-	-	-	458,563
1979	-	-	-	456,760
1980	-	642,000	427,000	450,750
1990	-	-	551,000	-
2000	-	-	581,000	-

* Projections of Population and College Enrollment in Michigan, 1970-2000, Population Studies Center, University of Michigan, Model 2, Projected Degree-Credit Enrollment.

Figure 3
COMPARISON OF ENROLLMENT PROJECTIONS
(GRAPHICAL DISPLAY OF TABLE 16)



PART IV

DEGREES AND AWARDS

One of the commonly accepted measures of output for institutions of higher education is the number of program completions represented by degrees awarded.

Such information provides insights into the kinds of educational needs currently being met, as well as rates of retention by program at the various institutions.

Based on the HEGIS report of degrees and other awards for the period July 1, 1972 to June 30, 1973, the following tabulations comprise one measure of productivity for Michigan colleges and universities. Table 17 shows 10,382 Associate Degrees awarded at public community colleges, compared to 9,409 degrees awarded in the preceding year. In addition, 3,223 certificates of completion and other awards were given.

Table 18 shows distribution of degrees by level for the public baccalaureate institutions, with a total of 50,302 degrees in 1972-73, compared to 47,440 a year prior. It is interesting to note that 31% of all degrees are for the masters level or above for these institutions. A similar tabulation for independent colleges and universities is shown in Table 19, indicating a total of 9,590 degrees awarded at all levels in 1972-73, 16% of which were at the masters level or above.

Table 20 reports the distribution of bachelor's degrees by academic program for public institutions. Following the overall enrollment statistics, 23% of degrees awarded (7,543) were in education, with social

studies second in popularity at 5,704.5 out of a total of 33,015. (The 0.5 indicates split majors.)

Distribution of master's and doctor's degrees by program and institution are shown in Tables 21 and 22, with a total of 12,494 master's and 1,736 doctorates awarded by public baccalaureate institutions. Again, degrees in education predominate, with business and management in second place at the master's level, and social sciences placing second in number of doctorates.

Table 23 summarizes first-professional degrees conferred, with a total of 1,205 degrees from public institutions, and 512 from private colleges and universities. Of all degrees in dentistry, 82% are awarded by the University of Detroit, a private institution. A total of 252 law degrees were awarded by private colleges and universities, 26% of the total of 970 law degrees given in 1972-73.

Table 17

DEGREES AND OTHER FORMAL AWARDS BASED ON LESS THAN FOUR YEARS OF WORK BEYOND HIGH SCHOOL AND CONFERRED BY PUBLIC TWO-YEAR COLLEGES IN MICHIGAN BETWEEN JULY 1, 1972 and JUNE 30, 1973

	Curriculum Of 2 Or More Years, But Less Than 4 Years				
	Work Wholly or Chiefly Creditable Toward a Bachelor's Degree		Work Not Wholly or Chiefly Creditable Toward a Bachelor's Degree		Curriculums Of At Least One Year, But Less Than Two Years
Institution	Assoc. Degree	Other Awards	Assoc. Degree	Other Awards	
Alpena	169	--	23	--	5
Bay de Noc	69	--	42	416	124
Delta	329	--	379	--	40
Glen Oaks	67	--	--	25	22
Gogebic	76	--	23	--	32
Grand Rapids	603	--	145	--	125
Henry Ford	351	--	376	494	--
Highland Park	194	--	127	--	50
Jackson	317	--	18	--	137
Kalamazoo	136	--	120	--	12
Kellogg	212	--	183	--	106
Kirtland	36	--	4	11	--
Lake Michigan	147	--	70	36	--
Lansing	235	--	338	--	70
Macomb County	1,462	--	--	--	467
Mid Michigan	44	--	20	--	46
Monroe County	152	--	83	--	--
Montcalm	70	7	--	11	53
Muskegon	252	--	93	--	92
C. S. Mott	293	--	325	--	422
North Central	78	--	37	--	--
Northwestern	65	--	84	--	112
Oakland	443	--	279	--	52
St.Clair County	135	--	151	24	82
Schoolcraft	227	3	235	2	40
Southwestern	71	--	93	--	39
Washtenaw	134	--	166	--	8
Wayne County *	517	--	--	--	34
West Shore	84	1	--	--	23
TOTAL	6,968	11	3,414	1,019	2,193

Source: Higher Education General Information Survey (HEGIS) 1973-74

* No report received for 1972-73. Data is from prior year.

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Table 18

DEGREES AND OTHER FORMAL AWARDS CONFERRED BY PUBLIC FOUR-YEAR COLLEGES AND UNIVERSITIES IN MICHIGAN BY INSTITUTION AND DEGREE LEVEL JULY 1, 1972 TO JUNE 30, 1973

Institution	Below Bachelor's	Bachelor's	Master's	First Professional	Doctor's	Total
Central Michigan University	46	2,845	837	-	-	3,728
Eastern Michigan University	17	3,809	1,411 *	-	-	5,237
Ferris State College	1,260	918	-	-	-	2,178
Grand Valley State College	-	643	-	-	-	643
Lake Superior State College	112	123	-	-	-	235
Michigan State University	-	7,528	2,469	144	686	10,827
Michigan Technological University	91	810	94	-	3	998
Northern Michigan University	158	1,301	223	-	-	1,682
Oakland University	-	1,153	256	-	-	1,409
Saginaw Valley College	-	274	1	-	-	275
University of Michigan						
(Ann Arbor)	-	4,905	3,485	760	752	9,902
(Dearborn)	-	329	36	-	-	365
(Flint)	-	349	-	-	-	349
Wayne State University	62	3,659	2,356	401	258	6,736
Western Michigan University	6	4,369	1,326	-	37	5,738
TOTAL	1,752	33,015	12,494	1,305	1,736	50,302

* This figure includes specialist degrees.

Source: Higher Education General Information Survey (HEGIS) 1973-74

Table 19

DEGREES AND OTHER FORMAL AWARDS CONFERRED BY INDEPENDENT COLLEGES AND UNIVERSITIES IN MICHIGAN FROM JULY 1, 1972 TO JUNE 30, 1973

Institution	Below Bachelor's	Bachelor's	Master's	First Professional	Doctor's	Total
Adrian	-	269	-	-	-	269
Albion	-	351	-	-	-	351
Alma	-	231	-	-	-	231
Andrews	7	375	140	105	-	627
Aquinas	-	301	20	-	-	321
Calvin	-	558	-	-	-	558
Calvin Seminary	-	-	11	36	-	47
Cleary	128	57	-	-	-	185
Concordia Lutheran	188	-	-	-	-	188
Cranbrook Academy	-	8	65	-	-	73
Davenport Bus.	300	-	-	-	-	300
Detroit Bible	-	28	-	-	-	28
Det. Col. of Bus.	75	103	-	-	-	178
Det. Col. of Law *	-	-	-	151	-	151
Det. Inst. of Tech.	-	206	-	-	-	206
Duns Scotus	-	13	-	-	-	13
Gen. Motors Inst.	36	441	-	-	-	477
Grace Bible *	15	8	-	-	-	23
Grand Rpds. Baptist	6	43	8	12	-	69
Hillsdale	-	232	-	-	-	232
Hope	-	408	-	-	-	408
John Wesley	-	10	-	-	-	10
Kalamazoo	-	234	-	-	-	234
Lawrence Tech.	90	367	-	-	-	457
Madonna	3	88	-	-	-	91
Maryglade *	-	3	-	-	-	3
Marygrove	21	158	116	-	-	295
Mercy	-	262	-	-	-	262
Merrill-Palmer	-	-	-	-	-	-
Michigan Christian	57	-	-	-	-	57

Table 19 (Cont'd.)

DEGREES AND OTHER FORMAL AWARDS CONFERRED BY
INDEPENDENT COLLEGES AND UNIVERSITIES IN MICHIGAN FROM
JULY 1, 1972 TO JUNE 30, 1973

Institution	Below Bachelor's	Bachelor's	Master's	First Professional	Doctor's	Total
Muskegon Business	102	-	-	-	-	102
Nazareth	-	70	-	-	-	70
Northwood	267	88	-	-	-	355
Olivet	-	151	-	-	-	151
Reformed Bible	9	14	-	-	-	23
Sacred Heart	-	20	-	-	-	20
St. Mary's	-	14	-	-	-	14
Shaw	35	47	-	-	-	82
Siena Heights	3	96	34	-	-	133
Soc. of Arts & Craft	10	27	-	-	-	37
Spring Arbor	-	136	-	-	-	136
Suomi	86	-	-	-	-	86
Univ. of Detroit	63	1,008	609	185	23	1,888
Walsh College	37	76	-	-	-	113
Western Seminary	-	-	6	30	-	36
TOTAL	1,538	6,501	1,009	519	23	9,590

Source: Higher Education General Information Survey (HEGIS), 1973-74

* No report received for 1972-73. Data is from prior year

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Table 20

BACHELOR'S DEGREES CONFERRED BY PUBLIC FOUR-YEAR COLLEGES AND UNIVERSITIES IN MICHIGAN
July 1, 1972 to June 30, 1973

	Central	Eastern	Ferris	Grand Valley	Lake Superior	Michigan State	Michigan Tech.	Northern	Oakland	Saginaw Valley	University of Michigan Ann Arbor	University of Michigan Dearborn	University of Michigan Flint	Wayne State	Western	Total
Agri. & Nat. Res.	-	-	-	-	-	481	60	-	-	-	128	-	-	-	16	685
Arch. & Environ.	-	-	-	-	-	48	-	-	-	-	98	-	-	-	-	140
Area Studies	-	-	-	-	-	7	-	-	1	-	31	-	-	4	12	55
Biological Sci.	162	97	15	36	6.5	338	44	49	74	13	363	10	25	114	101	1,447.5
Bus. & Mgmt.	318	576	444	41.5	19	598	132	152	71	34.5	155	53	56	441	652	3,743
Communications	65	-	40	-	-	384	-	-	-	-	53	-	-	93	104.5	[illegible]
Computer Sciences	3	3	66	1	-	90	-	-	-	1	19	-	-	3	-	[illegible]
Education	1,071	1,290	155	39.5	-	1,430	-	531	37	-	608	67	113	697	1,304.5	[illegible]
Engineering	21	36	12	-	27	330	469	19	70	-	600	58	-	[illegible]	310.5	2,119.5
Fine & App.'d. Arts	18	284	-	24	-	275	-	6	40	5	254	-	4	153	56.5	1,119.5
Foreign Lang.	56	27	-	17.5	-	91	-	13	40	2	123	-	4.5	56	61	491
Health Prof.	-	72	152	8	2	284	9	90	-	-	369	-	3	251	67	1,307
Home Economics	113	64	-	-	-	314	-	11	-	-	-	-	-	71	58	631
Law	-	39	-	-	-	-	-	-	-	-	25	-	-	-	-	64
Letters	262	341	-	49.5	6	265	-	99	189	60.5	456	15	25	183	445.5	2,392.5
Library Sci.	39	36	-	-	-	-	-	-	-	-	-	-	-	31	-	106
Mathematics	25	53	19	17	5	206	29	13	32	9	126	7	5	79	30.5	655.5
Physical Sci.	44	53	6	26	4.5	111	47	19	28	9	122	2	6	67	41	585.5
Psychology	123	123	-	54	6.5	399	-	25	141	28	305	20	23.5	265	118	1,631
Public Affairs	16	136	9	8	-	473	-	75	-	-	-	-	-	75	75	867
Social Sciences	508	568	-	293	46.5	1,125	-	199	430	112	705	66	81	[illegible]	943	[illegible]
Interdisciplinary	1	11	-	28	-	299	20	-	-	-	365	31	3	54	-	642
TOTAL	2,845	3,809	918	643	123	7,528	810	1,301	1,153	274	4,905	329	349	3,659	4,369	33,015

Source: Higher Education General Information Survey (HEGIS), 1973-74

Table 21

MASTER'S DEGREES CONFERRED BY PUBLIC FOUR-YEAR COLLEGES AND UNIVERSITIES IN MICHIGAN
JULY 1, 1972 TO JUNE 30, 1973

	CMU	EMU	MSU	MTU	NMU	OU	SVC	U of M		WSU	WMU	TOTAL
								Ann Arbor	Dearborn			
Agri. & Nat. Res.	-	-	175	8	-	-	-	57	-	-	-	240
Arch. & Environ.	-	-	10	-	-	-	-	45	-	15	-	70
Area Studies	-	-	-	-	-	-	-	28	-	1	6	35
Biological Sci.	13	18	106	9	14	-	-	97	-	35	13	305
Bus. & Mgmt	167	95	362	12	-	-	-	336	-	248	103	1,323
Communications	14	-	63	-	-	-	-	17	-	-	29	123
Computer	-	-	26	-	-	-	-	56	-	5	-	87
Education	437	1,117	1,092	-	148	201	-	570	-	1,063	761	5,389
Engineering	1	-	87	52	-	9	-	344	36	124	16	669
Fine & Appl'd. Arts	2	21	41	-	-	-	-	118	-	43	13	238
Foreign Lang.	-	2	17	-	-	-	-	52	-	25	13	109
Health Prof.	-	-	38	-	9	-	-	387	-	55	50	539
Home Economics	3	26	54	-	-	-	-	-	-	23	2	108
Law	-	-	-	-	-	-	-	19	-	10	-	29
Letters	49	34	49	-	19	17	-	256	-	114	19	557
Library Sci.	20	-	-	-	-	-	-	269	-	143	116	548
Mathematics	12	19	58	2	8	10	-	86	-	45	11	251
Physical Sci.	7	6	41	11	8	5	1	83	1	27	14	203
Psychology	38	15	44	-	-	14	-	53	-	30	49	243
Public Affairs	36	-	95	-	1	-	-	390	-	179	36	737
Social Sciences	38	49	107	-	16	-	-	214	-	158	75	657
Interdisciplinary	-	9	4	-	-	-	-	8	-	13	-	34
TOTAL	837	1,411	2,469	94	223	256	1	3,485	36	2,356	1,326	12,494

Source: Higher Education General Information Survey (HEGIS), 1973-74

Table 22

DOCTORATES CONFERRED BY PUBLIC FOUR-YEAR COLLEGES AND UNIVERSITIES IN MICHIGAN
JULY 1, 1972 TO JUNE 30, 1973

	Michigan State	Michigan Tech.	U of M Ann Arbor	Wayne State	Western Michigan	Total
Agri. & Nat. Res	80	-	17	-	-	97
Arch. & Environ.	-	-	4	-	-	4
Area Studies	-	-	11	-	-	11
Biological Sci.	62	-	61	17	-	140
Bus. & Mgmt.	28	-	15	-	-	[illegible]
Communications	14	-	-	-	-	[illegible]
Computer Sciences	3	-	16	-	-	19
Education	217	-	133	107	25	482
Engineering	26	-	87	4	-	117
Fine & Appl'd. Arts	9	-	29	-	-	38
Foreign Lang.	13	-	32	-2	-	47
Health Prof.	7	-	20	-	-	27
Home Economics	9	-	-	-	-	9
Law	-	-	8	-	-	8
Letters	23	-	84	31	-	138
Library Sci.	-	-	3	-	-	3
Mathematics	17	-	29	7	3	56
Physical Sci.	59	3	54	45	3	164
Psychology	36	-	43	19	-	98
Social Sciences	83	-	95	26	6	210
Interdisciplinary	-	-	11	-	-	11
TOTAL	686	3	752	258	37	1,736

Source: Higher Education General Information Survey (HEGIS), 1973-74

Table 23

FIRST PROFESSIONAL DEGREES CONFERRED
JULY 1, 1972 TO JUNE 30, 1974

	Andrews	Calvin Semin.	Det.Coll. of Law	Grand Rapids Baptist	Univ.of Detroit	Western Theo.Sem.	Mich. State	Univ.of Michigan	Wayne State	Total
Dentistry	-	-	-	-	77	-	-	17	-	94
Medicine	-	-	-	-	-	-	30	205	121	356
Optometry	-	-	-	-	-	-	-	-	-	-
Osteopathic Med.	-	-	-	-	-	-	18	-	-	18
Podiatry	-	-	-	-	-	-	-	-	-	-
Vet. Medicine	-	-	-	-	-	-	96	-	-	96
Law	-	-	151	-	101	-	-	438	280	970
Theology	105	36	-	12	-	30	-	-	-	183
Other	-	-	-	-	-	-	-	-	-	-
TOTAL	105	36	151	12	178	30	144	660	401	1,717

Recommendation

Almost no data is collected or is routinely available on student enrollment or completion in non-collegiate postsecondary institutions. The 1974 report of the National Commission on Financing Postsecondary Education stresses the point of the need to expand our definition of postsecondary education to include these schools. The Commission expended great effort to assemble a comprehensive data base including the non-collegiate sector. It is recommended that the data gathering function on enrollments and completions be expanded to include non-collegiate institutions as an integral part of the planning function to meet manpower needs.

PART V

MANPOWER REQUIREMENTS

One of the major issues of advising on the educational needs of the state is the assessment of societal needs. A measure of such needs is the estimated demand for trained or educated persons in specific occupations in the future. These requirements can then be related to the capabilities of the institutions, and the aspirations of individual citizens to pursue career fields.

As an example, Table 24 shows total employment and projections to 1976 for ten occupational categories. As can be seen, major growth is anticipated in professional occupations, management and clerical positions in business, sales, and service occupations. Farm managers, craftsman, machine operators, and household employee occupations show little growth or declining employment potential.

In order to translate this information into a format useful for academic program planning, obviously more detailed information is needed. For example, 26,375 additional professional people will be needed each year through 1976. This category would include medicine, law, education, dentistry, or a number of other occupations. Other detail is needed as to where job openings are likely to occur for specific occupations. Community colleges especially are designed to serve a local population, and manpower planning data must be made available at the local institutional level as well as on a regional or statewide basis.

Recommendation

That efforts be continued to establish a comprehensive manpower planning information system in conjunction with such other state, federal, or local agencies as may be appropriate. Such a system shall be designed to provide information on manpower needs to local institutions, for regional planning, and for the state, and be correlated with enrollments at postsecondary institutions.

Table 24

1971 EMPLOYMENT AND EXPECTED EMPLOYMENT GROWTH 1972 AND 1976
FOR SELECTED OCCUPATIONS

Ocupation	1971	1972	Gain (Loss)	Percentage	1976	Annual Gain (Loss)	Average Annual Percentage
Professional	482,700	502,400	19,700	4.1	607,900	26,375	5.3
Farm Managers	37,900	36,800	(1,100)	(2.9)	32,400	(1,100)	(3.0)
Managers	257,100	264,100	7,000	2.7	302,700	9,650	3.7
Clerical	508,400	526,100	17,700	3.5	623,600	24,375	4.6
Sales	239,700	244,400	4,700	2.0	271,500	6,775	2.8
Craftsmen	465,700	469,800	4,100	0.9	491,500	5,425	1.2
Operatives	629,000	632,700	3,700	0.6	631,700	(250)	0.0
Private Household	60,700	60,700	0	0.0	61,300	150	0.2
Service	317,200	329,600	12,400	3.9	400,300	17,675	5.4
Labor	21,700	23,000	1,300	6.0	29,900	1,725	7.5
Occupation Total	3,020,100	3,089,600	69,500	2.3	3,452,800	90,800	2.9

Source: Michigan Employment Security Commission

PART VI

CONCLUSIONS AND RECOMMENDATIONS

Enrollment trends for institutions of higher education in the State of Michigan appear to be following the national pattern. Overall enrollment growth has slowed from the high rate of the mid-sixties. However, the state did experience a slightly higher enrollment growth rate than the national average (4.6 percent vs. 3.9 percent).

Community colleges continue to gain an increasing share of total college enrollments, while the proportion attending public four-year and private institutions has declined over the past ten years. Programs such as degree reimbursement and expanded student financial assistance may tend to stabilize private and independent college enrollments at about their present 50,000 level.

As to projections of enrollments, most national studies indicate a leveling of college enrollments through the 1980's, with actual declines in student attendance in some cases. Substantiation for these projections is provided by the fact that there are fewer potential college-age students presently in K-12 schools, reducing the total number of possible college students in future years. The end of the military draft is also cited as a reason for a decline in male college enrollment in the 17-19 age group, along with a general decline in interest in college on the part of many young people.

Going counter to the factors causing a decline in college enrollments are new programs in nontraditional studies and increased interest on the part of adults of all ages in college programs. Increases in

enrollments by women in general, and ethnic minorities in particular, also may partially affect the declines in overall enrollment.

Altogether, there is no reason to expect higher education enrollments in Michigan to differ significantly from the national picture. Slight increases in total enrollment are projected through 1978, with a decline in the total through 1980.

The impact of the overall enrollment levels on individual institutions has already been significant, and it is essential that adequate planning be undertaken to assist in the transition from a period of rapid growth to a "no-growth" situation.

The Department of Education staff, together with representatives of the institutions, will develop a projection of enrollments by institution through the year 1980.

A review of enrollments in graduate programs indicates a substantial proportion with very low enrollments (15 students or less). Because of the high cost, and low potential of manpower needs for such programs, their continuance in operation is questionable.

Therefore, it is recommended that the State Board of Education support the phasing out of graduate programs that cannot, in a three-year period, produce a full-time equivalent enrollment of at least 15 students.

The report of the National Commission on Financing Postsecondary Education indicates nearly 3,000 public and private colleges and universities in the United States. An additional 7,000 institutions of a vocational, technical, or trades nature are accredited by a recognized accrediting agency, or approved for Veteran's or Social Security

educational benefits. There is an additional 3,500 postsecondary schools that offer formal learning experiences in fields such as real estate, foreign languages, and recreation, but do not participate in federal student aid programs. A substantial number of these 10,500 noncollegiate institutions exist in Michigan, and yet very little is known of their enrollments, productivity, or student achievement.

The data gathering function on enrollments and student completions should be expanded to include non-collegiate institutions, as an integral part of the process of planning to meet manpower needs.

The bulk of the data which is currently available deals with student enrollments and completion or degree statistics. This constitutes the "supply" side of the equation. On the "demand" side of the equation is information on manpower requirements and projections which can be linked to the academic programs. It is here that the greatest deficiency exists in the structure of the information system.

Staff of the Department of Education are working with the Michigan Employment Security Commission (MESC) to make use of employment data being developed by MESC.

It is recommended that efforts be continued and expanded to provide a comprehensive manpower planning information system compatible with the Academic Program Classification Structure, in conjunction with other state, federal, and local agencies, for use in academic program planning by institutions and state agencies.

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